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October 17, 2017

VIA ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street S.W.
Washington, DC 20554

Re: Notice of Ex Parte Presentation
GN Docket No. 14-177; IB Docket No. 15-256; RM-11664; WT Docket No. 10-112; IB Docket No. 97-95

Dear Ms. Dortch:

Nextlink Wireless, LLC ("Nextlink") submits the attached study by Reed Engineering, a revision of a study Nextlink previously submitted in April 2017 in the above-referenced proceedings.[1] As with the prior version of the study, this version concludes that 5G networks in the LMDS A3 band and B block can coexist with the passive Radio Astronomy Service ("RAS"), Earth Exploration Satellite Service ("EESS") and Space Research Service ("SRS") in the neighboring 31.3-31.8 GHz band.

The findings in both Reed Engineering studies are consistent with a recent analysis filed by T-Mobile USA, Inc., in which T-Mobile found that next-generation wireless broadband operations in the 31.8-33.4 GHz band could coexist with adjacent RAS and EESS operations in the neighboring passive band.[2]

The revisions in this updated version of the study address a potential ambiguity in International Telecommunication Union ("ITU") documents regarding the specific location at which the EESS interference threshold applies. Specifically, the ITU's standards do not clearly define whether the interference threshold applies at the input to the EESS antenna or at the EESS receiver. The April version of the study assumed the former, but this revision considers both interpretations. Applying an interference threshold at the EESS receiver does reduce the number of base stations

[1] *See* REED ENGINEERING, CO-EXISTENCE OF 5G MOBILE SERVICE AND RAS, EESS, AND SRS AT 31 GHZ (Apr. 2017), *attached to Ex Parte* Letter from Michele C. Farquhar, Counsel to Nextlink Wireless, LLC to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177, *et al*. (filed Apr. 20, 2017).

[2] *See* T-MOBILE, UNLEASHING MILLIMETER WAVE SPECTRUM IN THE 32 GHZ, 47 GHZ, AND 50 GHZ BANDS: COEXISTENCE OF MOBILE BROADBAND OPERATIONS WITH THE EARTH EXPLORATION SATELLITE SERVICE AND RADIO ASTRONOMY SERVICE, *attached to Ex Parte* Letter from Steve B. Sharkey, Vice President, Government Affairs, Technology and Engineering Policy, T-Mobile USA, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177, *et al*. (filed Oct. 2, 2017).

that may operate in a zone without causing harmful interference to EESS operations. However, neither scenario results in a significant deployment constraint in the A3 band and B block.

Reed Engineering also revised the study based on the latest ITU guidance on maximum allowed interference power in receive bandwidth. The updated interference threshold value for protecting EESS is 6 dB more stringent than the threshold used in the April study in light of recently updated ITU standards. Finally, the revised study contains a few other minor changes, corrections and improvements that do not alter the primary conclusions in the April submission.

The overall conclusion from both Reed Engineering studies remains the same: 5G deployments in the 31.0-31.3 GHz band can protect EESS in the adjacent band (as well as RAS and SRS) from harmful interference. The Reed Engineering and T-Mobile studies provide concrete evidence that next-generation mobile wireless services can coexist with passive band services in the 31.3-31.8 GHz band.

Pursuant to Section 1.1206(b) of the Commission's rules, I am filing this letter electronically in the above-referenced docket. Please contact me directly with any questions.

Respectfully submitted,

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Partner

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Enclosure (1)